Innovation Place
and
Regina Research Park

Economic Impact Study

prepared by:
University Studies Group,
University of Saskatchewan
with the assistance of:
Office of Resource Planning,
University of Regina

January 2002

1.0 Project Background and Methodology

The following results are based on a survey of Innovation Place Research Park (IP) and Regina Research Park (RRP) in November and December 2001. The survey and analysis were carried out by the University Studies Group, University of Saskatchewan on behalf of the Saskatchewan Opportunities Corporation (SOCO). The Office of Resource Planning, University of Regina assisted with the administration of the RRP survey. The results will also form part of the University of Saskatchewan's biennial Economic Impact Study.

The first three questions of the survey were designed to obtain data on each organization's salary expenditures (gross and net), expenditures on goods and services (with an estimate of the portions purchased in each city and in Saskatchewan), and number of employees (headcount and FTE). These data were used to estimate the direct and indirect economic impact of the research parks on each city and the province, in terms of cash flow into the economy and employment generated.

The methodology developed by the University of Saskatchewan for the Economic Impact analysis is explained in more detail in a paper, "The Economic Impact of Downsizing," by C. Davis and B. Dubray, in the proceedings of the 1996 conference of the Canadian Institutional Research and Planning Association, Calgary, October, 1996 (available on the Web at http://www.cirpa-acpri.ca/prevConferences/calgary96/96_proceedings/).

Two additional questions were designed to assist research park management in their strategic planning: whether tenants had plans to expand their operations, and whether they would recommend the research park to potential tenants. As with the economic impact analysis, results are provided for each research park separately and for the two together, where appropriate. A copy of the questionnaires is appended to this report.

Notes re. Innovation Place respondents:
Of the 111 companies on the original list provided by Innovation Place, 11 were excluded because they were combined with other companies' submissions, had moved, or only used their research park site on a sporadic basis. After an initial mailout (by mail and e-mail) and follow-up (by telephone), responses were received from 82 companies. Estimates of the missing data were made based on employee counts, data from previous years, and extrapolations from average payroll and purchasing dollars per FTE employee.

Innovation Place organizations associated with the University of Saskatchewan were included in this study, apart from the new Canadian Light Source, which will receive a separate impact analysis in the future. The U of S-related organizations are the Health of Animals Laboratory, the Innovation Place portion of the Plant Biotechnology Institute, POS Pilot Plant, Canadian Wildlife Service, and VIDO.

Notes re. Regina Research Park respondents:
Of the 22 companies on the original list provided by Regina Research Park, 5 were excluded because they were combined with other companies' submissions, had moved, or only used their research park site on a sporadic basis. After an initial mailout (by mail and e-mail) and follow-up (by telephone), responses were received from 15 companies. The two companies which did not respond only had 3 employees each, according to RRP records; estimates of the missing data were made based on average payroll and purchasing dollars per FTE employee.

It should be noted that this is the first year that an economic impact analysis of the Regina Research Park has been carried out. It is anticipated that the results for RRP and the combined analysis will serve as a useful baseline for assessing future growth.

2.0 Economic Impact Analysis

2.1 Innovation Place Economic Impact

The aggregated payroll, purchasing and employment data used for the economic impact analysis of Innovation Place in 2001, including both actual data and estimates, were as follows (with 1999 results in brackets):

Local Gross Payroll (including benefits)	$ 88.6 million	($ 75.0 M)
Local Net Payroll (excluding benefits)	$ 70.6 million	($ 61.5 M)
Total Value of Goods & Services purchased	$ 151.1 million	($ 117.7 M)
Saskatoon Purchases as percent of total	41%	(42%)
Value of Saskatoon Purchases	$ 62.4 million	($ 48.9 M)
Provincial Purchases as percent of total	53%	(49%)
Value of Provincial Purchases	$ 79.6 million	($ 58.1 M)
Employee headcount	1,944	(1,797)
Full-time Equivalent (FTE) Employment	1,824.6 FTE	(1,620.1)

Multiplier Effects:
The direct impact of salaries, purchases, and employment in a region is augmented by indirect or 'multiplier' effects, as a portion of money spent in a region is re-spent within that region, and jobs are created to produce and handle goods and services required by the direct employees. The University of Saskatchewan's methodology uses a conservative income multiplier of 1.43 and a conservative employment multiplier of 2 within primary wholesale-retail centres in Saskatchewan (i.e. Saskatoon and Regina). That is, for every dollar spent in either city, at least 43 cents are generated in additional income within the city; and for every FTE job, one additional FTE job is created in the city. The corresponding provincial multipliers are 1.65 for income and 2.3 for employment.

Thus, using the above data, the impacts of Innovation Place on Saskatoon and Saskatchewan are as follows:

Impact on the City of Saskatoon:

Direct Impact: Net Payroll plus Local Purchases	$ 133.1 M	($ 110.5 M)
Total Impact: Direct Impact x Multiplier of 1.43	$ 190.3 M	($ 157.9 M)
Total Employment Impact: FTEs x Multiplier of 2	3,649.2 FTE	(3,240.2)

Impact on the Province (including Saskatoon)

Direct Impact: Net Payroll plus Provincial Purchases	$ 150.2 M	($ 119.6 M)
Total Impact: Direct Impact x Multiplier of 1.65	$ 247.9 M	($ 197.3 M)
Total Employment Impact: FTEs x Multiplier of 2.3	4,196.6 FTE	(3,726.2)

In summary, our economic impact model suggests that Innovation Place generated roughly **$190 million** in the City economy and **almost $250 million** in the provincial economy in 2001, and that a total of approximately **3,650 FTE jobs** in the City and **4,200 jobs** in the Province are attributable to the presence of Innovation Place.

2.2 Regina Research Park Economic Impact

The aggregated payroll, purchasing and employment data used for the economic impact analysis of Regina Research Park in 2001, including both actual data and estimates, were as follows:

Local Gross Payroll (including benefits)	$ 42.1 million
Local Net Payroll (excluding benefits)	$ 34.8 million
Total Value of Goods & Services purchased	$ 62.3 million
Regina Purchases as percent of total	75%
Value of Regina Purchases	$ 46.9 million
Provincial Purchases as percent of total	82%
Value of Provincial Purchases	$ 50.8 million
Employee headcount	755
Full-time Equivalent (FTE) Employment	736.3 FTE

As explained in the previous section, the University of Saskatchewan's methodology uses an income multiplier of 1.43 for the city and 1.65 for the province, and an employment multiplier of 2 for the city and 2.3 for the province. Thus, using the above data, the impacts are as follows:

Impact on the City of Regina:

Direct Impact: Net Payroll plus Local Purchases	$ 81.7 M
Total Impact: Direct Impact x Multiplier of 1.43	$ 116.8 M
Total Employment Impact: FTEs x Multiplier of 2	1,472.6 FTE

Impact on the Province (including Regina)

Direct Impact: Net Payroll plus Provincial Purchases	$ 85.6 M
Total Impact: Direct Impact x Multiplier of 1.65	$ 141.2 M
Total Employment Impact: FTEs x Multiplier of 2.3	1,693.5 FTE

In summary, our economic impact model suggests that Regina Research Park generated almost **$120 million** in the City economy and roughly **$140 million** in the provincial economy in 2001, and that a total of approximately **1,470 FTE jobs** in the City and almost **1,700 jobs** in the Province are attributable to the presence of Regina research park.

2.3 Combined Research Park Economic Impact on the Province

The aggregated payroll, purchasing and employment data used for the economic impact analysis of the combined research parks in 2001, including both actual data and estimates, were as follows:

Local Net Payroll (excluding benefits)	$ 105.4 million
Total Value of Goods & Services purchased	$ 213.4 million
Provincial Purchases as percent of total	61% (includes cities)
Value of Provincial Purchases	$ 130.5 million
Full-time Equivalent (FTE) Employment	2,560.9 FTE

As explained above, the University of Saskatchewan's methodology uses an income multiplier of 1.65 and an employment multiplier of 2.3 for the province. Thus, using the above data, the impacts are as follows:

Impact on the Province (including Regina and Saskatoon)

Direct Impact: Net Payroll plus Provincial Purchases	$ 235.8 M
Total Impact: Direct Impact x Multiplier of 1.65	$ 389.1 M
Total Employment Impact: FTEs x Multiplier of 2.3	5,890.1 FTE

In summary, our economic impact model suggests that the research parks together generated almost **$390 million** in the provincial economy in 2001, and that a total of almost **5,900 FTE jobs** in the Province are attributable to the presence of the research parks.

3.0 Employee Counts

The following text and graphics provide information on the number of persons employed by Innovation Place and Regina Research Park tenants. In a small proportion of Innovation Place cases, the number of employees was estimated on the basis of number of access cards and parking permits. In addition, for Innovation Place, the decision was made not to extrapolate to the total headcount provided by SOCO management (1,965 exclusive of Perimeter Road organizations, compared with the survey headcount of 1,944 including Perimeter Raod), due to differences in times and methods of counting. All analyses use full-time-equivalent (FTE) employee counts rather than headcount.

3.1 FTE Employee complement at Innovation Place

The Economic Impact survey asked each company to indicate both the *full time equivalent* (FTE) employee count as of census date June 1, 2001 (including contract employees) and the number of individuals employed. For the purposes of the impact analysis, only FTEs were used. Figure 1 shows the employee statistics for Innovation Place.

Overall, the *average* number of FTE employees per tenant has decreased, from 22.2 in 1999 to **17.8** in 2001. The *total* was **1,824.6**, an increase of 13% over the 1999 figure of 1,620.1.

The majority of companies employed fewer than 11 FTEs: 36% indicated they had *less than 5* FTE employees, 26% had *5 to 10*, 22% had *11 to 25*, a further 14% had *26 to 100*, and 2 companies (2%) employed *over 100* FTEs.

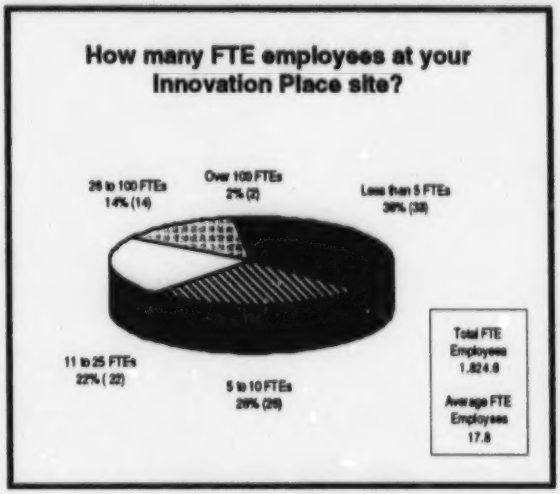
How many FTE employees at your Innovation Place site?
26 to 100 FTEs 14% (14)
Over 100 FTEs 2% (2)
Less than 5 FTEs 36% (33)
11 to 25 FTEs 22% (22)
5 to 10 FTEs 26% (26)
Total FTE Employees 1,824.6
Average FTE Employees 17.8

Figure 1

3.2 FTE Employee complement at Regina Research Park

Figure 2 shows the employee statistics for Regina Research Park.

The majority of companies employed fewer than 11 FTEs: 35% indicated they had *less than 5* FTE employees, 24% had *5 to 10*, 18% had *11 to 25*, 12% had *26 to 100*, and a further 12% (2 companies) employed *over 100* FTEs.

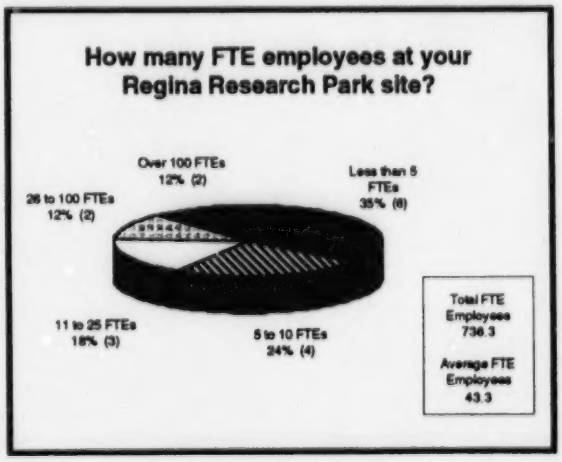
How many FTE employees at your Regina Research Park site?
Over 100 FTEs 12% (2)
Less than 5 FTEs 35% (6)
26 to 100 FTEs 12% (2)
11 to 25 FTEs 18% (3)
5 to 10 FTEs 24% (4)
Total FTE Employees 736.3
Average FTE Employees 43.3

Figure 2

3.3 FTE Employee complement combined

Figure 3 shows the FTE employee count for the two research parks together.

The majority of companies employed fewer than 11 FTEs: 36% indicated they had *less than 5* FTE employees, 26% had *5 to 10*, 21% had *11 to 25*, 14% had *26 to 100*, and only 3% (4 companies) employed *over 100* FTEs.

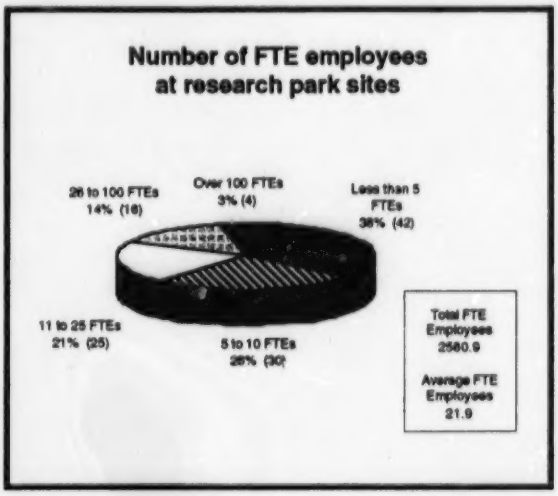
Number of FTE employees at research park sites
26 to 100 FTEs 14% (18)
Over 100 FTEs 3% (4)
Less than 5 FTEs 36% (42)
11 to 25 FTEs 21% (25)
5 to 10 FTEs 26% (30)
Total FTE Employees 2580.9
Average FTE Employees 21.9

Figure 3

3.4 Changes in number of FTE employees at Innovation Place

The tenants were also asked to indicate whether their full time equivalent employee numbers had changed from the previous year.

As Figure 4 shows, 45% of the Innovation Place companies reporting indicated that their FTE employee numbers had *increased* since last year (43% in 1999), while 38% said their FTE numbers had *stayed the same* (40% in 1999). Only 12%, one percentage point lower than in 1999, indicated that their FTE employee complement had *decreased* from the previous year.

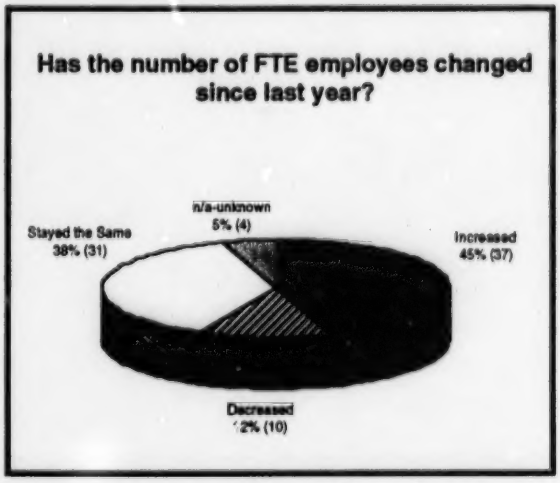
Has the number of FTE employees changed since last year?
n/a-unknown 5% (4)
Stayed the Same 38% (31)
Increased 45% (37)
Decreased 12% (10)

Figure 4

3.5 Changes in number of FTE employees at Regina Research Park

Regina Research Park tenants were also asked whether the number of full time equivalent employees had changed since the previous year.

As Figure 5 shows, 53% of the companies reporting indicated that their FTE employee numbers had *increased* since last year, while 33% said their FTE numbers had *stayed the same*. Only 13% (2 companies) indicated that their FTE employee complement had *decreased* from the previous year.

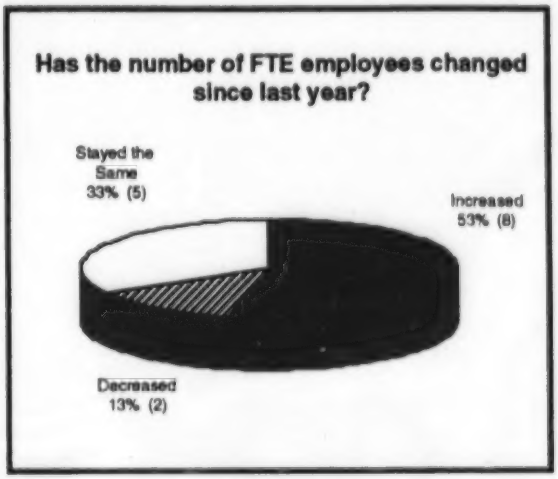

Figure 5

3.6 Changes in total number of FTE employees (combined research parks)

Figure 6 shows the change in employee complement for the research parks together.

46% of the companies reporting indicated that their FTE employee numbers had *increased* since last year, while 37% said their FTE numbers had *stayed the same*. Only 12% (12 companies) indicated that their FTE employee complement had *decreased* from the previous year. Four companies (4%) selected 'not applicable (started up this year)' or were unsure.

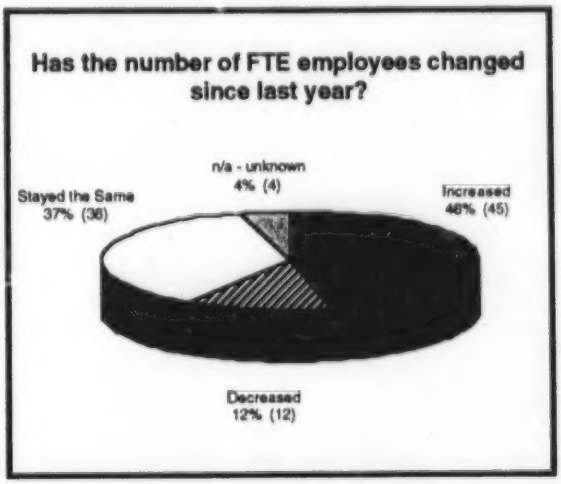
Has the number of FTE employees changed since last year?
n/a - unknown 4% (4)
Stayed the Same 37% (36)
Increased 46% (45)
Decreased 12% (12)

Figure 6

4.0 Plans to Expand

Organizations were asked whether they had plans to expand at their Innovation Place or Regina Research Park sites (within the next year or the next three years), and if so, whether they planned to expand in number of employees, space, or both.

4.1 Plans to expand at Innovation Place

Of the 80 Innovation Place tenants who responded to this question, more than half (59%) had plans to expand (slightly higher than the 1999 total of 53%). 36% planned to expand within the next year and a further 23% within the next three years. 29% of respondents did not have plans to expand, while 13% were unsure.

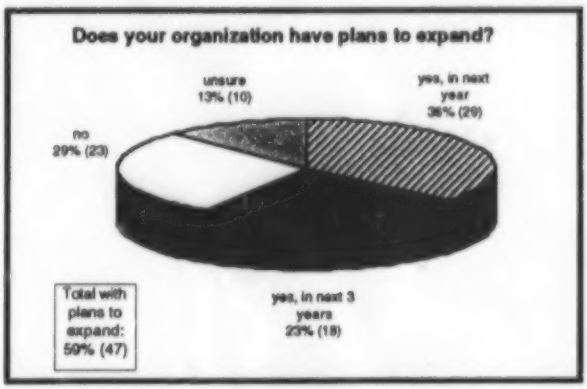

Figure 7

Of those with expansion plans, 20 (43%) planned to expand in number of employees only, 3 (6%) planned to expand in space only, and 23 (49%) planned to expand in both employee complement and space. (2% were unsure.)

4.2 Plans to expand at Regina Research Park

Of the 15 RRP tenants who responded to this question, more than half had plans to expand. 40% planned to expand within the next year and a further 20% within the next three years. 20% of respondents did not have plans to expand, while 20% were unsure.

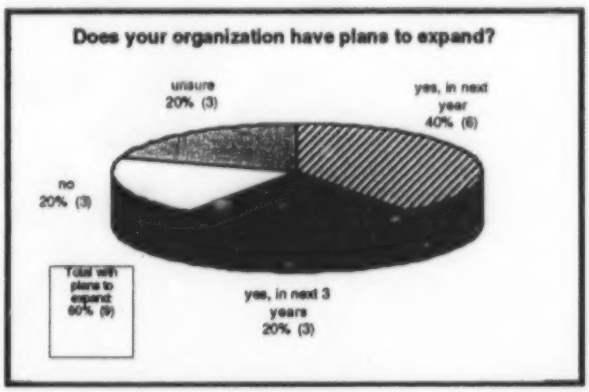

Figure 8

Of those with expansion plans, 4 (44%) planned to expand in number of employees only, none planned to expand in space only, and 4 (44%) planned to expand in both employee complement and space. (1 was unsure.)

4.3 Combined plans to expand

Of the 95 research park tenants who responded to this question, more than half (59%) had plans to expand. 37% planned to expand within the next year and a further 22% within the next three years. 27% of respondents did not have plans to expand, while 14% were unsure.

Of those with expansion plans, 24 (43%) planned to expand in number of employees only, 3 (5%) planned to expand in space only, and 27(48%) planned to expand in both employee complement and space. (Two companies—4%—were unsure.)

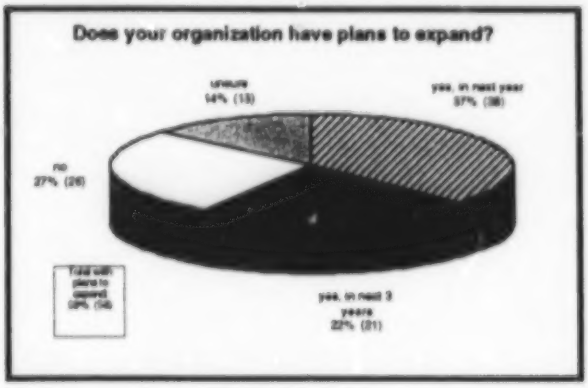

Figure 9

5.0 Tenant Satisfaction with Research Parks

Respondents were asked to rate, on a scale of 1 (low, totally disagree) to 7 (high, totally agree) whether they would recommend Regina Research Park or Innovation Place to potential tenants. Because this question relates specifically to the individual research parks, no combined analysis is possible.

5.1 Recommendation of Innovation Place to potential tenants

Almost all of the Innovation Place responses (99%) were positive, with the vast majority (87%) strongly so. As indicated in Figure 10, 34% of respondents recommended Innovation Place at the highest level (totally agree) and 53% rated it at 6 (strongly agree). 11% chose 5 (agree), and only one respondent out of the 79 (1%) rated Innovation Place negatively, at 3.

This overall support is even stronger than in 1999, when 30% rated their recommendation at 7, 39% at 6, 26% at 5, and 6% at 4.

The mean response was 6.2, slightly higher than the 1999 mean of 5.9.

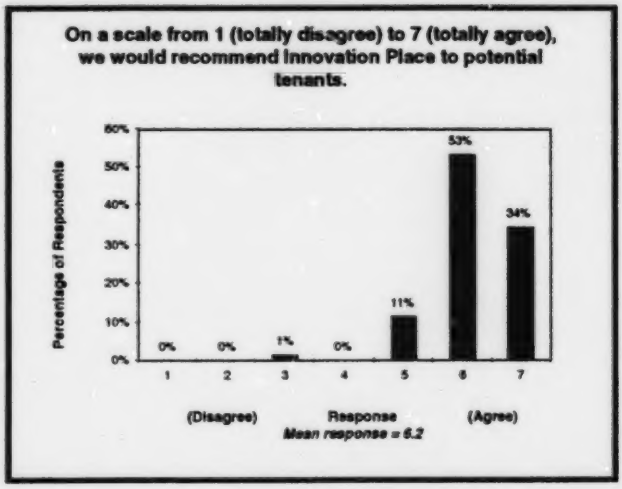

Figure 10

5.2 Recommendation of Regina Research Park to potential tenants

The majority (71%) of Regina Research Park responses were positive, 57% strongly so. As indicated in Figure 11, 14% of respondents recommended RRP at the highest level (totally agree) and 43% rated it at 6 (strongly agree). 14% chose 5 (agree), and 29% were neutral, at 4. There were no negative responses.

The mean response was 5.4.

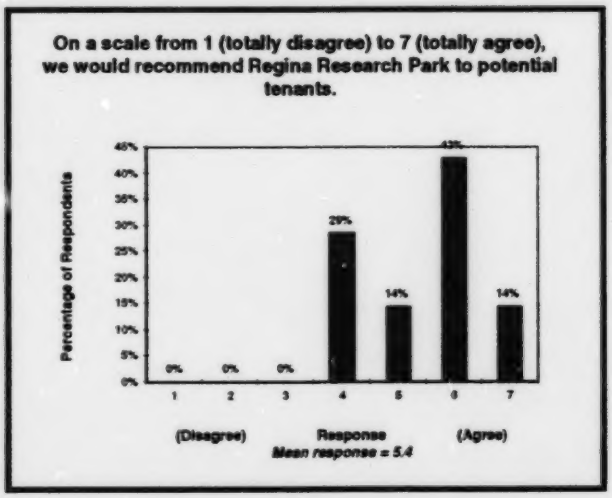

Figure 11

Appendix 1:

Survey Questionnaires
2001

«COMPANY»
«MAIL_ADDRESS»
Saskatoon, SK «PCZIP»

November 6, 2001

Attention: «FIRST_NAME» «LAST_NAME»

Re: ***Innovation Place Economic Impact Analysis***

Recently you received a letter from Austin Beggs, Marketing Manager of Innovation Place, requesting your cooperation in completing a short questionnaire relating to your activities as a tenant. This survey is part of an analysis of the economic impact of the University of Saskatchewan and related organizations, conducted every two years by the University Studies Group of the U of S. The survey also asks for some 'census' information — but you will be glad to know that this part of the questionnaire is *much* shorter than in previous years!

This study is one of the most important measures of the value of the research park to the City and the Province. It is used by all levels of the Corporation and Government in making decisions about support for Innovation Place and its future expansion. *We need a response from every tenant*: if we have to extrapolate from the data, our picture of the research park's role will not be as accurate. A copy of last year's Innovation Place Newsletter report is enclosed for your information.

If your organization has multiple branches, please provide data for the Innovation Place site only. Rough estimates are acceptable, and if your fiscal year does not correspond to the University's (May 1, 2000 to April 30, 2001), you may provide data for the most comparable twelve-month period which is convenient. As always, *your financial data will remain confidential and only aggregated totals will be reported.* Innovation Place management will not see individual responses.

This year we will be e-mailing the questionnaire as well as mailing the enclosed hard copy, for the convenience of those tenants with e-mail addresses. The completed questionnaire may be returned by e-mail, by fax, or by mail (though e-mail and fax are preferred as the deadline is very tight this year). Please feel free to contact me if you have any questions (Ph. 966-7817, Fax 966-7819, E-mail caroline.davis@usask.ca).

A reply by **November 19, 2001** would be greatly appreciated. **Remember, if you respond by Nov. 19th, you will be entered in a draw for some outstanding prizes!**

Yours sincerely,

Dr. Caroline Davis
Research Analyst, University Studies Group
encl.

CONFIDENTIAL

Economic Impact Survey 2001

Company Name: _____

Contact Name: _____

Phone: _____ E-mail: _____

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Please provide information relating to your Innovation Place branch only.
All financial data will remain confidential. Only aggregate totals will be reported.

Data Requested	Amount	Time Period (e.g. May 00-Apr 01)
1. Local Gross Payroll *(including benefits)*	_____	_____
Local Net Payroll *(excluding benefits)*	_____	_____
2. Total Value of Goods/ Services Purchased *(including capital expenditures)*	_____	_____
Estimated Value or Percentage of Goods/Services Purchased Within *Saskatoon*	_____	_____
Estimated Value or Percentage of Goods/Services Purchased Within *Saskatchewan* *(including Saskatoon)*	_____	_____

3. Number of Employees (*including contract employees*):

Headcount (# of individuals employed)	_____	as of June 1, 2001
Full-Time-Equivalent count (e.g. 3 half-time + 1 full-time = 2.5 FTE)	_____	as of June 1, 2001

Has the number of full-time-equivalent employees changed from last year? *(check one)*

❑ increased ❑ decreased ❑ stayed the same ❑ not applicable (e.g. new company)

4. Does your organization have plans to expand?

- ❑ plan to expand in next year
- ❑ plan to expand in next three years
- ❑ do not plan to expand
- ❑ unsure

If *yes*, in which areas do you plan to expand?

- ❑ in number of employees
- ❑ in space
- ❑ both of the above

«COMPANY»
«MAIL_ADDRESS»
Regina, SK «PCZIP»

November 7, 2001

Attention: «FIRST_NAME» «LAST_NAME»

Re: Regina Research Park Economic Impact Analysis

Recently you received a letter from Ken Loeppky, General Manager of the Regina Research Park, requesting your cooperation in completing a short questionnaire relating to your activities as a tenant. This survey is being conducted jointly by the University of Regina's Office of Resource Planning and the University of Saskatchewan's University Studies Group, in order to analyze the economic impact of the university research parks locally and provincially.

This study is one of the most important measures of the value of the research parks to the cities and the Province. It is used by all levels of the Corporation and Government in making decisions about the support and future expansion of the Regina Research Park and Innovation Place. This is not a 'sample survey': we need a response from *every* tenant in order to provide an accurate picture of the role of the research parks in the economy of this region.

If your organization has multiple branches, please provide data for your Regina Research Park site only. Rough estimates are acceptable, and if your fiscal year does not correspond to the University's (May 1, 2000 to April 30, 2001), you may provide data for the most comparable twelve-month period which is convenient. Please note that *your financial data will remain confidential and only aggregated totals will be reported.* The research park management will not see individual responses.

We will be e-mailing the questionnaire as well as mailing the enclosed hard copy, for the convenience of those tenants with e-mail addresses. The completed questionnaire may be returned by e-mail, fax, or mail (though e-mail and fax are preferred as the deadline is very tight this year). If you have any questions, please contact the project coordinator, Dr. Caroline Davis, at the University of Saskatchewan (Tel. (306) 966-7817, Fax (306) 966-7819, E-mail caroline.davis@usask.ca).

A reply by **November 20, 2001** would be greatly appreciated. **Remember, if you respond by Nov. 20th, you will be entered in a draw for some great prizes!**

Yours sincerely,

David G. Bamford
Director of Resource Planning
encl.

Economic Impact Survey 2001

Company Name: _____

Contact Name: _____

Phone: _____ E-mail: _____

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Please provide information relating to your Regina Research Park branch only.
All financial data will remain confidential. Only aggregate totals will be reported.

Data Requested	Amount	Time Period (e.g. May 00-Apr 01)
1. Local Gross Payroll (*including benefits*)	_____	_____
Local Net Payroll (*excluding benefits*)	_____	_____
2. Total Value of Goods/ Services Purchased (*including capital expenditures*)	_____	_____
Estimated Value or Percentage of Goods/Services Purchased Within *Regina*	_____	_____
Estimated Value or Percentage of Goods/Services Purchased Within *Saskatchewan* (*including Regina*)	_____	_____

3. Number of Employees (*including contract employees*):

Headcount (# of individuals employed) _____ as of June 1, 2001

Full-Time-Equivalent count (e.g. 3 half-time + 1 full-time = 2.5 FTE) _____ as of June 1, 2001

Has the number of full-time-equivalent employees changed from last year? *(check one)*

❑ increased ❑ decreased ❑ stayed the same ❑ not applicable (e.g. new company)

4. Does your organization have plans to expand?

- ❑ plan to expand in next year
- ❑ plan to expand in next three years
- ❑ do not plan to expand
- ❑ unsure

If *yes*, in which areas do you plan to expand?

- ❑ in number of employees
- ❑ in space
- ❑ both of the above

5. On a scale from 1 (totally disagree) to 7 (totally agree), do you agree that you would recommend Regina Research Park to potential tenants? *(circle one)* 1 2 3 4 5 6 7

disagree <---- ----> agree